

Colorado
Agricultural
Statistics
Service

COLORADO
SHEEP AND LAMB
LOSSES -- 1997

645 Parfet Street Room W-201
P O Box 150969
Lakewood, CO 80215

(303) 236-2300
(800) 392-3202

Released: February 1998

Colorado farmers and ranchers lost 75,000 head of sheep and lambs to all causes in 1997, representing a total value of \$6.46 million, according to a survey conducted by the Colorado Agricultural Statistics Service in cooperation with the Colorado Wool Growers Association. A similar survey for 1996 indicated that 75,000 head of all sheep and lambs, valued at \$6.22 million, were lost from all causes. While the number of head lost was the same as a year earlier, the higher value for both sheep and lambs resulted in a 4 percent increase in the total value of those losses. The total inventory of all sheep and lambs at the beginning of 1997, at 575,000 head, was 7 percent higher than the 535,000 head on hand one year earlier. The 1997 lamb crop totaled 225,000 head down 6 percent from the 240,000 lambs docked in 1996. Total sheep and lamb death losses in 1997 accounted for 9.1 percent of the available supply of animals during the year compared with losses in 1996 totaling 9.4 percent of the available supply.

Predators caused an estimated \$2.94 million in losses during 1997 compared with a value of \$2.50 million in 1996. They accounted for 34,000 head (45 percent of all losses) in 1997 compared with 30,000 head (40 percent of all losses) in 1996. Predator losses amounted to 4.1 percent of the available supply in 1997, up from 3.8 percent of the sheep and lamb supply in 1996. Lamb losses by all predators amounted to 29,000 head in 1997 compared with 25,500 head a year earlier. Coyotes, the most damaging predator in each year, were responsible for \$1.84 million, representing 63 percent of the value loss from predators and 29 percent of the value loss from all causes. Losses from Bear and Mountain Lions had a combined value of \$691 thousand. More than half of the predator losses occurred in the Northwest and Mountain District where all of the major predators were active. Most of the major predators were also active in the San Luis Valley and the Southwest Districts. Losses from Bear and Mountain Lions were limited to the Northwest and Southwest Districts while Coyotes and dogs continued to be the major cause of predator losses in the other Districts.

The total value of sheep and lamb losses from **non-predator causes** was estimated at \$3.51 million in 1997, down 6 percent from \$3.72 million a year earlier as the fewer number of head lost more than offset the higher value per head. Non-predator losses of 41,000 head in 1997 represented 55 percent of all losses compared with 45,000 head or 60 percent of all losses the previous year. Losses from disease accounted for 34 percent of the total value of non-predator losses with weather related losses representing 33 percent. Disease claimed more than 38 percent of the lambs lost from non-predator causes but just 14 percent of the mature sheep losses. More than 80 percent of the non-predator losses occurred in the Northeast District where disease and weather related problems are the predominant cause of loss in the state's commercial feedlots. Lambing problems accounted for nearly \$400 thousand of the non-predator total with more than 50 percent of the losses occurring in the Southwest District. Most other non-predator losses occurred in the Northwest and Southwest Districts.

The 1997 survey indicated that 22 percent of the sheep producers in the state used the services of a government trapper during the year. However, nearly half of the producers in the Northwest District and about 30 percent of the producers in the Southwest and San Luis Valley Districts used a government trapper. Less than 2 percent of the producers in the other Districts reported using a government trapper. Eighty percent of the producers indicated using one or more non-lethal predator control measures in 1997. Fencing and the use of guard animals were the most common practice used, followed by night penning and shed lambing. Each of the non-lethal predator control measures was rated to be somewhat to very effective in controlling the loss of sheep and lamb to predators.

SHEEP & LAMBS: Inventory, Death Losses, and Value of Losses, Colorado, 1994-97

Year	January 1 Inventory	Lamb Crop	Death Losses					
			Sheep	All Lambs			All Sheep & Lambs	
	All Sheep & Lambs		Total Losses	Before Docking	After Docking	All Lambs	Total Loss	% of Supply <u>1/</u>
	1,000 Head		1,000 Head				Percent	
1994	647	255	15	20	55	75	90	9.8
1995	545	240	10	15	55	70	80	10.0
1996	535	240	10	20	45	65	75	9.4
1997	575	225	10	20	45	65	75	9.1
Year	Total Sheep & Lamb Losses By Cause				Value Of Losses			
	Predator Losses		Non-Predator Losses		Predator	Non-Predator	Total	
	Total Loss	Percent of Supply <u>1/</u>	Non-Predator	Percent of Supply <u>1/</u>				
	1,000 Hd.	Percent	1,000 Head		1,000 Dollars			
1994	33.0	3.6	57.0	6.2	2,073.8	3,528.8	5,602.6	
1995	26.0	3.3	54.0	6.8	1,930.4	3,959.6	5,890.0	
1996	30.0	3.8	45.0	5.7	2,502.3	3,720.8	6,223.1	
1997	34.0	4.1	41.0	5.0	2,944.0	3,511.0	6,455.0	

1/ Supply includes sheep and lambs on hand January 1 plus lamb crop plus lamb losses before docking.

SHEEP AND LAMBS: Number and Value of Losses by Cause, Colorado, 1996-97 1/

Cause	Sheep				Lambs				Total Sheep & Lambs			
	No. Lost		Value <u>2/</u>		No. Lost		Value <u>2/</u>		No. Lost		Value <u>2/</u>	
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
Predator:	1,000 Head		\$1,000		1,000 Head		\$1,000		1,000 Head		\$1,000	
Bear	1.5	1.8	158.3	214.2	2.5	3.1	198.8	251.1	4.0	4.9	357.1	465.3
Bobcat	...	...	...	...	.4	.3	31.8	24.3	.4	.3	31.8	24.3
Coyote	1.2	2.2	126.6	261.8	13.8	19.5	1,097.1	1,579.5	15.0	21.7	1,223.7	1,841.3
Dog	.1	.5	10.6	59.5	2.4	1.1	190.8	89.1	2.5	1.6	201.4	148.6
Eagle	...	...	...	...	.6	1.0	47.7	81.0	.6	1.0	47.7	81.0
Fox	...	...	...	...	.9	1.0	71.6	81.0	.9	1.0	71.6	81.0
Mountain Lion	1.4	.4	147.7	47.6	4.5	2.2	357.8	178.2	5.9	2.6	505.5	225.8
Other Predator <u>3/</u>	.3	.1	31.7	11.9	.4	.8	31.8	64.8	.7	.9	63.5	76.7
Total Predator	4.5	.0	474.9	595.0	25.5	29.0	2,027.4	2,349.0	30.0	34.0	2,502.3	2,944.0
Non-Predator:												
All Diseases	1.0	.7	105.5	83.3	21.0	13.8	1,669.5	1,117.8	22.0	14.5	1,775.0	1,201.1
Weather related	.5	.6	52.8	71.4	8.0	13.3	636.0	1,077.3	8.5	13.9	688.8	1,148.7
Lambing problems	.4	.5	42.2	59.5	3.6	4.2	286.2	340.2	4.0	4.7	328.4	399.7
Old age	1.4	1.7	147.7	202.3	...	...	...	...	1.4	1.7	147.7	202.3
Being on back	.2	.2	21.7	23.8	...	...	...	...	.2	.2	21.1	23.8
Poisoning	.3	.8	31.7	95.2	.3	.6	23.9	48.6	.6	1.4	55.6	143.8
Theft	.2	.1	21.1	11.9	.1	...	8.0	...	.3	.1	29.1	11.9
Other causes <u>4/</u>	1.5	.4	158.3	47.6	6.5	4.1	516.8	332.1	8.0	4.5	675.1	379.7
Total Non-Predator	5.5	5.0	580.4	595.0	39.5	36.0	3,140.4	2,916.0	45.0	41.0	3,720.8	3,511.0
Total All Causes	10.0	10.0	1,055.3	1,190.0	65.0	65.0	5,167.8	5,265.0	75.0	75.0	6,223.1	6,455.0

1/ Sheep value is based on a two year average value per head of ewes 1 year old and older; Value of \$105.50 for 1996, \$119.00 for 1997. Lamb value is based on the marketing year average price received for a 90 pound lamb; \$79.50 for 1996, \$81.00 for 1997.

2/ Totals may not add due to rounding. 3/ Includes unknown predator losses. 4/ Includes unknown non-predator losses.

**SHEEP AND LAMBS: Percent Loss Within Each Agricultural Statistics District, by Type
of Predator, Colorado, 1997 1/**

Cause	Agricultural Statistics District						State
	NW & Mountain	Northeast	East Central	Southwest	San Luis Valley	Southeast	
Predator:	Percent						
Bear	78.0	...	...	22.0	...	...	100.0
Bobcat	100.0	...	...	...	...	...	100.0
Coyote	48.3	6.5	1.9	17.8	24.3	1.2	100.0
Dog	8.0	8.9	6.4	34.8	36.8	5.1	100.0
Eagle	93.1	...	...	5.2	1.7	...	100.0
Fox	87.8	...	...	...	11.2	1.0	100.0
Mountain Lion	91.7	...	...	8.3	...	...	100.0
Other Predators <u>2/</u>	79.5	1.4	1.6	10.8	5.9	.8	100.0
Total Predator	57.6	4.6	1.6	17.3	17.8	1.1	100.0

1/ Includes all lamb losses both before and after docking.

2/ Includes unknown predators.

**SHEEP AND LAMBS: Percent Loss Within Each Agricultural Statistics District,
by Non-predator Causes, Colorado, 1997 1/**

Cause	Agricultural Statistics District						State
	NW & Mountain	Northeast	East Central	Southwest	San Luis Valley	Southeast	
Non-Predator:	Percent						
All Diseases	4.7	81.1	1.1	6.8	5.2	1.1	100.0
Weather related causes	22.9	28.7	7.3	30.6	6.0	4.5	100.0
Lambing problems	19.8	5.1	8.0	52.5	11.3	3.3	100.0
Old age.....	16.4	10.3	13.9	38.8	18.4	2.2	100.0
Being on their back.....	13.8	5.4	6.2	54.6	17.7	2.3	100.0
Poisoning	37.8	2.8	1.5	51.1	6.8	...	100.0
Theft	51.0	...	...	4.3	40.4	4.3	100.0
Other non-predator <u>2/</u>	11.2	43.1	1.7	28.7	13.0	2.3	100.0
Total Non-Predator.....	9.6	81.6	.2	5.7	2.4	.5	100.0

1/ Includes all lamb losses both before and after docking.

2/ Includes unknown non-predator losses.

Use and Effectiveness of Non-Lethal Predator Control Measures, Colorado, 1997

Non-Lethal Predator Control Measures	Number Reporting	Percent of Responses Using and Not Using Practice		Effectiveness Rating of Those Reporting Use of Each Practice		
		Practice Used	Practice Not Used	Very Effective	Somewhat Effective	Not Effective
One or More Practices Used	310	80.0	20.0			
Fencing		43.9	56.1	24.7	68.0	7.3
Scaring Devices (fright tactics) ..		8.4	91.6	46.4	49.2	4.4
Guard Animals.....		43.9	56.1	56.0	43.3	.7
Husbandry Practices:						
Herding, Gathering.....		15.5	84.5	71.8	24.4	3.8
Night Penning		40.6	59.4	81.8	17.2	1.0
Shed Lambing		38.4	61.6	81.3	8.8	9.9
Move Livestock		15.5	84.5	26.6	60.6	12.8

SHEEP AND LAMBS: Percent of Loss by Cause and Size of Flock, Colorado, 1996-97 1/

Cause	Stock Sheep Operations by Size of Flock						Commercial Feedlots		All Sizes	
	1 - 99		100 - 999		1,000 Plus					
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
Predator:	Percent		Percent		Percent		Percent		Percent	
Bear.....	.8	...	5.9	5.4	11.3	13.4	...	...	5.6	7.4
Bobcat.....	...	...	...	...	1.3	1.0	...	...	.6	.5
Coyote.....	30.9	16.9	27.1	25.9	26.3	39.7	8.0	9.8	19.1	27.2
Dog	3.8	14.8	1.9	4.5	.5	.6	6.9	.6	3.6	2.1
Eagle.....	.4	.3	...	.3	1.8	3.0	...	...	.8	1.6
Fox.....	.2	.7	.2	1.6	2.9	2.4	...	...	1.3	1.4
Mountain Lion.....	4.6	1.7	6.7	5.6	18.9	6.1	...	...	7.9	3.8
Other Predator 2/.....	.8	1.4	.4	2.0	1.9	2.6	...	...	.9	1.6
Total Predator:	41.5	35.8	42.2	45.3	64.9	68.8	14.9	10.4	39.8	45.6
Non-Predator:										
All Diseases.....	6.9	12.6	17.0	13.0	9.5	3.7	55.7	53.4	30.0	20.8
Weather related	16.0	12.2	14.7	13.0	5.0	12.0	16.0	23.2	11.2	15.7
Lambing problems	13.8	23.0	7.7	13.3	7.4	7.4	...	...	4.7	6.9
Old age	5.7	6.2	5.3	5.5	1.8	1.6	...	...	1.5	1.9
Being on back.....	.3	1.6	.4	.9	.4	.4	...	...	.2	.4
Poisoning.....	.9	1.4	.6	2.6	1.8	3.1	...	...	.9	1.9
Theft.....	...	...	1.0	.6	.6	.2	...	...	.4	.2
Other non-predator 3/.....	14.9	7.2	11.1	5.8	8.6	2.8	13.4	13.0	11.3	6.6
Total Non-Predator	58.5	64.2	57.8	54.7	35.1	31.2	85.1	89.6	60.2	54.4
Total All Causes	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

... = none reported.

1/ Includes lambs before and after docking. 2/ Includes unknown predator losses.

3/ Includes unknown non-predator causes.

Charles A. Hudson, State Statistician

Paul Post, Statistician